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Presentation Title: DEM Production with ERS Tandem and SRTM Data in Italy and Switzerland

Abstract: The aim of the DUDES project is the production of a Digital Elevation Model over Italy and Switzerland using the X-SAR data from the Shuttle Radar Topography Mission (SRTM) and the SAR tandem data from the ESA ERS missions (ERS-1 and ERS-2). The project is funded under the Data User Programme of the European Space Agency.

The combination of ERS Tandem and SRTM X-band data allowed the production of a homogeneous DEM, filling the holes of SRTM X-SAR with multiple ERS Tandem pairs from ascending and descending passes. Test sites in Italia, Switzerland and Belgium have been chosen with a great variety of landscape and land cover. The validation of the DEM has been done with reference data from national geographic institutions. Horizontal and vertical accuracy has been evaluated and compared with DEMs derived from other space borne sensors.

The processing approach, the validation methodology and the results of the comparison will be presented at the workshop.